

Title (en)

DIGITAL DATA OVER VOICE COMMUNICATION.

Title (de)

GLEICHZEITIGE ÜBERTRAGUNG VON SPRACH- UND DIGITALEN DATENSIGNALEN.

Title (fr)

TRANSMISSION COMBINEE DE DONNES NUMERIQUES ET DE MESSAGES VOCAUX.

Publication

EP 0398994 B1 19941109

Application

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Priority

- US 8900740 W 19890223
- US 15988788 A 19880224

Abstract (en)

[origin: WO8908364A1] A method and apparatus is described for transmitting and receiving data signals and voice band signals over a single pair of wires, wherein the energy content of the data signals in the voice band is transferred to a higher frequency to avoid interference between the two. This is accomplished by sinusoidally encoding the data pulses in the frequency domain. The encoding is equivalently performed in the time domain by linearly combining weighted delayed and advanced versions of the data pulses, in accordance with a weighting formula. A transversal filter is used to multiple delayed and advanced versions of the data pulses by a scaling factor times the ratio of $m!/((m-i)!!)$ factorial wherein i is the i th version being weighted, m is an integer greater than one and $!$ indicates the factorial function.

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